

New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Nonpoint Pollution Control

FACT SHEET

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This fact sheet sets forth the principal facts and the significant factual, legal, and policy considerations examined during preparation of the draft permit. This action has been prepared in accordance with the New Jersey Water Pollution Control Act and its implementing regulations at N.J.A.C. 7:14A-1 et seq. - The New Jersey Pollutant Discharge Elimination System (NJPDES).

PERMIT ACTION: Sand and Gravel Stormwater General Permit, NJ0201189

1 Name and Address of the Applicant:

Varies - Statewide

2 Name and Address of the Facility/Site:

Varies – Statewide

3 Description of Permit History:

The objective of this regulatory action is to issue a **new** NJPDES general permit, namely the **Sand and Gravel Stormwater General Permit**, under **NJ0201189 (Category RSG)**. This category of facilities is currently covered under the Department's Mining and Quarrying Activity General Permit (NJ0141950). Upon finalization of this new general permit, any facilities currently authorized under NJ0141950 that meet the eligibility criteria described in Item 4 below, will be authorized under this general permit NJ0201189 and the individual authorizations under NJ0141950 will be revoked.

Below is a chronology of the Sand and Gravel Stormwater General Permit NJ0201189:

March 1, 2005 – The 2005 Mining and Quarrying Activity Stormwater General Permit was issued which authorizes the discharge of stormwater to surface water and ground water for facilities that **engage in Standard Industrial Classification—SIC (North American Industry Classification System—NAICS)** mining and quarrying activities: Code 1411 (212311) Dimension Stone; 1423 (212312) Crushed and Broken Granite; 1442 (212321) Construction Sand and Gravel; 1446 (212322) Industrial Sand; and 1459 (212325) Clay, Ceramic, and Refractory Minerals.

December 12, 2005 – The Mining and Quarrying Activity Stormwater General Permit was modified where the monitoring frequencies for surface water discharges were changed to quarterly, language for process water and mine dewatering were combined, the term 'turbidity' was removed, the language on mine dewatering pumping requirements was clarified, and non-contact cooling water was added to the list of process water discharges.

August 2012 – The Bureau of Nonpoint Pollution Control decides to split off the sand and gravel operations from the R13 Mining and Quarrying Activity Stormwater General Permit to form the **new** RSG Sand and Gravel Stormwater General Permit.

Sand and gravel mines/quarries throughout New Jersey have similar but unique operations and usually have no discharge to surface water. The Department uses the term 'borrow pit' to define the topographic

depression(s) created by the facility to extract the materials (usually sand of various types). The borrow pit may or may not intersect the water table. In the instances where the pit does intersect the water table a dredge (either diesel or electric) is used to move the material out of the pit via a slurry. Pipes direct the slurry over a number of screens and the return water is directed back to the borrow pit.

A summary of the proposed permit action is as follows:

<u>Permit Number</u>	<u>Permit Name</u>	<u>Permit Term</u>	<u>Facilities Currently Covered by Permit</u>	<u>Which Facilities will be Covered Upon Issuance of New Permit</u>
NJ0141950	Mining and Quarrying Activity Stormwater General Permit (Category R13)	<u>Issued:</u> February 1, 1995 <u>Expired:</u> April 30, 2010*	Mining and quarrying operations	Sand and gravel operations that do not have a surface water discharge
NJ0201189	Sand and Gravel Stormwater General Permit	<u>TBA</u>	Sand and gravel operations with no surface water discharge	All sand and gravel operations that have no surface water discharge that may have authorizations under the expired R13 permit, or may have individual stormwater or ground water permits

*NJ0141950 will not be renewed but instead replaced by NJ0201189 and a yet to be determined Multi-Operational Stormwater General Permit and, for some facilities, individual permits. Revocation of the authorizations under NJ0141950 will occur for the facilities applying for and obtaining the RSG permit NJ0201189.

In accordance with N.J.A.C. 7:14A-6.13(b)4, the Department may issue one master general permit to cover a category of discharges that meet the following criteria: involves the same or substantially similar types of operations; discharges the same type of wastes; requires the same or similar effluent limitations and operating conditions; requires the same or similar monitoring, and are more appropriately controlled under a general permit than under an individual permit. The purpose of a general permit for a specific industrial sector is to provide equal and consistent regulatory oversight that is applicable to similar facilities with similar industrial activity. The Department has determined that issuance of a master general permit for the sand and gravel/mining and quarrying activities meets these regulatory criteria.

4 Industry Overview and Permit Eligibility Criteria:

The RSG does establish certain criteria for facilities that engage in sand and gravel operations that do not have a discharge of stormwater to surface water. The RSG permit also limits the types of materials that can be stored onsite. The RSG allows for the storage of tree trunks and limbs, wood chips and other tree debris, and the storage of de-icing materials (e.g. road salt - Part IV, Section C.1.c.) other than the normal aggregate piles associated with the facility's sand and gravel operations.

Sand and gravel operations that excavate materials from a borrow pit that has intercepted the ground water table excavate the material with an electric or diesel dredge via a slurry that is directed to a series of screens that sort the material out and return the water back into the borrow pit.

Some facilities excavate materials from a borrow pit that has not intercepted the ground water table. These operations involve removing material with an excavator, storing the material, and then shipping the

material off site. Usually these facilities process top soil or clean fill depending on the grade of soil being excavated.

The RSG permit also addresses maintenance yard operations including fueling (including ancillary operations), maintenance and secondary containment. At a minimum, facilities with maintenance yard operations must establish best management practices (BMPs) listed in Attachment A of the RSG permit.

Facilities eligible for this Sand and Gravel Stormwater General Permit include the following:

- a. Facilities which conduct excavation of materials using a dredge, excavator or similar machinery, as whole or part of their industrial activity, and include the following SIC (and NAICS) codes: 1442 (NAICS 212321) Construction Sand and Gravel; 1446 (NAICS 212322) Industrial Sand; and parts of 1499 (NAICS 212399) Other Nonmetallic Mining (facilities that excavate soil and/or fill dirt).
- b. Facilities that may not have the above referenced SIC or NAICS codes but conduct operations out of a borrow pit for the purposes of removing sand and/or soil.

The following facilities and activities are not eligible for this permit:

- a. New facilities (established after the EDP—Effective Date of Permit) that discharge to ground water in areas classified under N.J.A.C. 7:9C as Class I-A and Class I-PL, or which discharge to ground water that contributes to surface waters classified as C1 or FW1;
- b. New facilities (established after the EDP—Effective Date of Permit) that submit a request for authorization application that fail to demonstrate a facility design capable of full compliance with this permit;
- c. Activities such as composting, recycling and/or storage of materials not associated with the facility's on-site industrial activity, unless authorized under Part IV, Section C.1.a. and b. of this permit;
- d. Process wastewater discharges containing surfactants, flocculants, detergents and/or other chemicals used in the process of their industrial activities; and
- e. Facilities that discharge to the surface waters of the State.

Facilities that are not eligible for the RSP may be directed to either apply for authorization under another general permit or apply for an individual permit.

5 Regulatory Authority:

Under the Federal Water Pollution Control Act (1972), amended by the Clean Water Act (1977) and the Water Quality Act (1987), a facility with a stormwater discharge associated with industrial activity shall obtain a National Pollutant Discharge Elimination System (NPDES) permit. On November 16, 1990, the United States Environmental Protection Agency (EPA) published the regulatory definition for “stormwater discharges associated with industrial activity,” which was adopted in the NJPDES regulations (N.J.A.C. 7:14A). The term “Stormwater Discharges Associated with Industrial Activity” defines some of the regulated community under the “Phase I” Industrial Stormwater Permit Program.

The Department is the issuing authority for NPDES permits in the State of New Jersey under the NJPDES regulations for discharges to surface water and ground water. The NJPDES definition for “stormwater associated with industrial activity” for discharges to surface water is found at N.J.A.C. 7:14A-1.2. Discharges to ground water are regulated pursuant to the State’s Water Pollution Control Act (N.J.S.A. 58:10A), the NJPDES regulations (N.J.A.C. 7:14A-7 and 8), and the Ground Water Quality Standards (GWQS) (N.J.A.C. 7:9C). A discharge permit may be required if the Department determines a point or

non-point source discharge contributes to a violation of water quality standards or is identified as a significant contributor of pollutants.

In accordance with the Federal Clean Water Act and its implementing regulations, this category of facilities is required to have a permit for stormwater discharges to surface water. Pursuant to 40 CFR 122.26, these facilities have a stormwater discharge associated with industrial activity.

Permit effluent limitations, non-numeric effluent limitations, monitoring requirements, Best Management Practices (BMPs) and other conditions are authorized by the Federal Water Pollution Control Act (33 U.S.C. 1251 et seq.), and the Water Pollution Control Act (State Act; N.J.S.A. 58:10A-1 et seq.). These statutes are implemented by the NPDES (40 CFR Part 122) and the NJPDES permit programs.

The Department is authorized under the federal regulations (40 CFR 122.44) and under NJPDES rules (N.J.A.C. 7:14A-6.2(b)) to impose BMPs to control or abate the discharge of pollutants in lieu of numeric effluent limitations in NJPDES permits. BMPs may be imposed when the Department determines that BMPs are reasonably necessary to achieve effluent limitations and standards, or to carry out the purposes and intent of the State and Federal Acts.

The proposed requirements incorporated in the Stormwater Pollution Prevention Plan (SPPP) are consistent with the Department's and EPA's stormwater permitting philosophy of reducing the amount of pollution created and preventing pollution from occurring in the first place (See 24 N.J.R. 2352). The SPPP requirements and monitoring requirements operate as limitations, controls on stormwater effluent discharges to prevent stormwater contamination, and are intended to achieve Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT).

Under the statutory and regulatory authority of the Clean Water Act, EPA issued the final 2008 Multi-Sector General Permit (MSGP) for stormwater discharges associated with industrial sources. The permit document and related information are located at http://www.epa.gov/npdes/pubs/msgp2008_part8.pdf, pages 79-86. The 2008 MSGP applies to industrial facilities located in five States, in certain Indian Country lands, and at various Federal Facilities where EPA remains the NPDES permit authority. The 2008 MSGP contains requirements for industrial facilities within 30 different industrial sectors to develop, implement, and maintain site-specific stormwater control measures and SPPPs in compliance with NPDES requirements. EPA has authorized the State of New Jersey to implement the NPDES stormwater program and administer its own stormwater permitting program. The Department has considered the requirements of the MSGP for guidance, specifically Part 8 – Subpart J – Sector J – Non-Metallic Mineral Mining and Dressing.

6 Type and Quantity of the Wastes or Pollutants:

Based on the nature of industrial activity and operations at sand and gravel quarry and mining sites, there is potential for ground water contamination from stormwater runoff, mostly from maintenance yard activities and storage of materials not handled or stored properly. Surface water discharges from sand and gravel sites are prohibited except for incidental stormwater discharges from non-disturbed areas within the facility's boundaries. The volume and quality of stormwater and groundwater discharges will depend on a variety of factors, including the outdoor activities at the facility (e.g. material storage, loading/unloading, vehicle maintenance), extent of impervious surfaces, type of ground cover, and duration and intensity of precipitation. Stormwater quality can vary depending on the effectiveness and implementation of BMPs as well as the performance of any pollution prevention and/or treatment methods.

The Department decided that monitoring will not be required in this permit after reviewing the process of sand and gravel operations. The decision to not require monitoring is based on the following:

- The borrow pit where the material is extracted, may or may not have intersected the water table. If the borrow pit has intersected the water table, the process for extracting the material is usually accomplished by using an electric or diesel dredge. There are no additions of chemicals in this process as it is simply a vacuum that moves the material in the form of a slurry, via a pipe, to a series of screens. After the material is deposited onto the screens, the water used to transport the material is returned to the borrow pit by overland or channelized flow. The only contact the process water has before being returned to the borrow pit is the metal screens used to sort the different sand and gravel sizes. The Department made a determination that there were no pollutants of concern introduced during the screening process.
- The other process involves removing material from a borrow pit where it has not intersected the water table. The removal of material involves heavy machinery loading the sand/gravel or top soil into trucks for shipment off-site. The only industrial process involved is physically removing the material by an excavator which involves no contact with pollutants to the source material.
- Another area of concern where there might be an introduction of pollutants into the environment is the maintenance yard areas where fueling and maintenance of vehicles occur. Any major spills of fuel oil, gasoline, etc., are covered under the NJ Spill Act (N.J.S.A. 58:10-23.11), whereas minor drips and spills associated with maintenance and fueling of vehicles are addressed in Attachment A of the permit. The associated BMPs for maintenance yard and fueling in Attachment A are to be incorporated into the facility's SPPP.
- The stockpiles of sand and gravel associated with the facility's operations, if not handled properly, could lead to total suspended solids (TSS) entering surface water bodies due to stormwater runoff from these stockpiles. The RSG addresses this concern by eliminating any surface water discharge from these stockpiles. No stormwater is allowed to discharge to any surface water body unless it is incidental stormwater runoff from undisturbed areas proximal to the surface water bodies.
- Facilities covered under the RSG that store tree trunks, limbs and other assorted tree debris onsite as a result of ancillary operations, are allowed to do so, provided that such materials are not stored in close proximity to or within any surface water body, wetland or transition area. The leaching of organic compounds (the main pollutants of concern) into stormwater from large chunks of unprocessed tree material is both insignificant and not a concern when the runoff is infiltrated into the ground. Thus, the monitoring of Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD), two indicators for the amount of organic compounds in water, is not necessary when tree trunks, limbs and other assorted tree debris are stored in accordance with the permit conditions. Similarly, monitoring of stormwater runoff from these materials is not required when stormwater is prevented from discharging to any surface water body.

The permit also allows for the storage of de-icing materials and wood chips onsite:

- De-icing materials may be kept onsite if stored in a manner consistent with the Department's de-icing materials storage policy, or the Salt Institute's guidelines, both of which are found in Attachment B of the permit. The Department's policy on the storage and handling of de-icing materials is that all de-icing materials are stored in a permanent structure with an impermeable floor.

- Wood chips should be stored in a manner such that stormwater runoff from wood chip piles cannot discharge to any surface water body. The main pollutants of concerns in the runoff from wood chip piles are BOD and COD. The permit requires that all runoff from wood chip piles be infiltrated directly into the ground.

7 Summary of Permit Conditions:

In an effort to reduce and/or minimize pollutants in stormwater from these facilities, this permit contains the following requirements:

- a. Best Management Practices (BMPs) and Stormwater Pollution Prevention Plan (SPPP)
 - BMPs for sand and gravel operations
 - BMPs for all other stored materials allowed by the RSG
 - Site-Wide BMPs
 - SPPP in place for facilities with current authorizations under the R13
 - Six (6) months to establish SPPP for all other facilities
- b. Establishing Drainage Control
 - Drainage Control Measures in place for facilities with current authorization under the R13
 - Six (6) months to establish drainage control for all other permittees

Additional details regarding each of these requirements are as follows:

- a. Best Management Practices (BMPs) and Stormwater Pollution Prevention Plan (SPPP)

Best Management Practices (BMPs)

Best Management Practices (BMPs) are practices that are utilized at the facility to minimize exposure of potential pollutant sources to stormwater. BMPs in a general permit are designed specifically for the industry covered. Part IV of this permit includes detailed BMPs for the following:

- Facility entrance
- Wood chips and tree debris
- Dust control
- Maintenance yard operations
- Salt and other de-icing material storage

In general, BMPs for these areas are designed to minimize exposure of potential pollutant sources to precipitation. This can be accomplished by covering materials with structures or tarps, or by containing these areas with containment devices or berms. If stormwater from these areas cannot be contained, treatment may be appropriate.

Part IV and Attachment A of this permit also includes detailed BMPs for the following areas that relate to the site as:

- General housekeeping
- Fluid storage area
- Fueling and maintenance
- Spill prevention and response
- Site stabilization and erosion control

BMPs are intended to minimize exposure of potential pollutant sources to precipitation. This can be accomplished by minimizing or eliminating exposure of stormwater to pollutant sources, and incorporating good housekeeping measures.

Stormwater Pollution Prevention Plan (SPPP)

The objective of the SPPP is to identify source materials and potential sources of pollution on site, and to document the practices utilized to minimize and/or eliminate the exposure of pollutant sources to stormwater. More specifically, the SPPP is a tool that is used to document the implementation and ongoing maintenance of the BMPs. The SPPP shall be prepared and/or updated and kept at the facility where it shall be available for inspection.

As described in further detail in Part IV of the RSG, the SPPP must contain all of the following components:

- Identification of BMPs
- Process line diagram
- Site map (including approximate direction of stormwater flow)
- Inventory of source materials
- Identification of SPPP Team
- Inspection schedule and log
- Annual Report
- Annual Certification
- Drainage Control Plan (described in further detail below)

The following table compares requirements under the new RSG permit:

Permit Requirement	Facilities currently authorized under the R13	Facilities currently authorized under another general permit or have an individual permit
Annual Report	Continue with submittal date under the R13	Shall be prepared annually with report kept onsite
Annual Inspection	Shall be conducted annually to prepare the Annual Report	Shall be conducted annually to prepare the Annual Report after six months from EDPA
Annual Certification	Shall be prepared annually to certify completion of Annual Report and Annual Inspection with submission to NJDEP	Shall be submitted annually after six months from EDPA
Inspection Schedule	Permit requires inspections to be conducted on an annual basis	Permit requires inspections to be conducted on an annual basis after six months from EDPA
SPPP	Shall be prepared and implemented from EDPA	Shall be prepared and implemented within six month from EDPA
Drainage Control Plan (DCP)	Shall be prepared and implemented from EDPA	Shall be prepared and implemented within six month from EDPA

A complete summary of all compliance and submittal dates is included in Part IV, Sections G and H of the permit.

b. Establishing Drainage Control

Drainage Control Measures

The permittee is required to implement drainage control. By Effective Date of Permit Authorization (EDPA) facilities currently authorized under the Mining and Quarrying Activity Stormwater General permit (R13) are required to have established drainage control. Facilities that were authorized under another general permit, or an individual stormwater or ground water permit have **six (6) months from EDPA** to establish drainage control.

The objective of drainage control is to ensure that:

- All stormwater associated with the regulated activity infiltrates to ground water.
- Discharges of stormwater (i.e. sheet flow) to surface water will be permanently eliminated.
- Ensure that **only** return flow water from the process area and incidental stormwater is discharged to a borrow pit that has intercepted the ground water table.

Drainage control can be established using methods that include, but are not limited to, the following:

- Diversionary structures;
- Grading;
- Berms;
- Embankments; and/or
- Groundwater infiltration basin(s).

Stormwater discharges shall not be allowed to migrate offsite. Stormwater control measures such as berms, barriers and site grading may be used to maintain stormwater on the site.

Drainage Control Plan (DCP)

Facilities currently authorized under the R13 will have to establish drainage control to be eligible for the RSG. For permittees that are currently authorized under another general permit, have an individual NJPDES permit or are an unpermitted facility (new or otherwise), the permittee shall develop a Drainage Control Plan with six (6) months of EDPA. The DCP shall be kept onsite as part of the SPPP. The DCP shall contain a written narrative and a Drainage Control Map. Additional details on the Drainage Control Map are as follows:

- Drainage Control Map

The Final Drainage Control Map shall be legible, drawn to an appropriate engineering scale, and certified by a licensed Professional Engineer. The Drainage Control Map shall clearly depict the following information (where applicable):

- Site boundary;
- Title block containing tax block and lot number;
- North directional arrow;
- Final grading of drainage areas, including elevations and flow arrows showing the drainage;
- Areas of industrial activity;
- Location of flow diversion structures;
- Existing buildings and other structures;
- Access roads; and
- Date prepared and subsequent revisions.

The Drainage Control Map shall be included as part of the Drainage Control Plan. The Drainage Control Plan and its component Drainage Control Map are to be kept onsite and made available to representatives of the Department.

8 Description of Procedures for Reaching a Final Decision on the Draft Action:

These procedures are set forth in N.J.A.C. 7:14A-15, 16, and 17. Included in the public notice are requirements for the submission of comments by a specified date, procedures for requesting a hearing, and other procedures for participation in the final agency decision. More specifically, the public notice includes requirements for the submission of comments to the Draft Permit modification, procedures for requesting a hearing, and other procedures for participation in the final agency decision, as set forth in N.J.A.C. 7:14A-15. The comment period will begin on the date the public notice appears in the New Jersey Bulletin or the date it appears in the *Star Ledger*, *Courier Post* or the *New Jersey Herald*, whichever is latest. The public comment period will remain open for 30 days from the latest date of publication but may be extended if public interest warrants.

9 Contact Information

If you have any questions regarding this permit action, please contact Matthew Klewin of the Bureau of Nonpoint Pollution Control at (609) 633-7021 or via e-mail at matt.klewin@dep.state.nj.us.

10 Contents of the Administrative Record

The following items are used to establish the basis of the Draft Permit:

Rules and Regulations:

1. 33 U.S.C. 1251 et seq., Federal Water Pollution Control Act. [C]
2. 40 CFR Part 131, Federal Water Quality Standards. [A] [C]
3. 40 CFR Part 122, National Pollutant Discharge Elimination System. [C]
4. N.J.S.A. 58:10A-1 et seq., New Jersey Water Pollution Control Act. [A] [B]
5. N.J.A.C. 7:14A-1 et seq., New Jersey Pollutant Discharge Elimination System Regulations. [A] [B]
6. N.J.A.C. 7:9B-1 et seq., New Jersey Surface Water Quality Standards. [A] [B]
7. Ground Water Quality Standards (N.J.A.C. 7:9-6)
8. N.J.A.C. 7:14C, Sludge Quality Assurance Regulations. [B]

Guidance Documents / Reports:

1. "Field Sampling Procedures Manual", published by the Department and available on the web at www.state.nj.us/dep/srp/guidance/fspm/.
2. "NJPDDES Monitoring Report Form Reference Manual" available on the web at www.state.nj.us/dep/dwq/pdf/MRF_Manual.pdf.
3. EPA's Multi Sector General Permit Development Document available on the web at www.cfpub.epa.gov/npdes/stormwater/msgp.cfm.

Permits / Applications:

1. NJPDES NJ0141950 Mining and Quarrying Stormwater General Peril General Permit for stormwater discharges to surface and/or ground water dated February 1, 2005.
2. NJPDES NJ0141950 modified to include quarterly monitoring and clarification on some terms was included.

Footnotes:

- [A] Denotes items that may be found in the NJPDES/DSW Administrative Record Library located in the NJDEP Central File Room, 401 East State Street, Trenton, New Jersey.
- [B] Denotes items that may be found on the New Jersey Department of Environmental Protection website located at www.state.nj.us/dep.
- [C] Denotes items that may be found on the United States Environmental Protection Agency (USEPA) website at www.epa.gov.